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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/911,855

07/23/2001

Shoji Nakamura

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EXAMINER

RHEE, JANE J

ART UNIT

PAPER NUMBER

1745

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/911,855

Applicant(s)

NAKAMURA ET AL.

Examiner

Jane Rhee

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8,23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/1/2006 has been entered.

New Rejection

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new matter limitation is "wherein the other surface does not include any of polishing marks, grinding marks, and chamfering marks". Applicant's specification states that molding free face has a smooth surface (spec page 4 line 11-12).

Rejections Repeated

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al. (6537648).

As to claim 1 and 8, Takahashi et al. discloses a molded glass substrate for a magnetic disk (col. 11 line 22-24, col. 9 line 28) comprising upper and lower principal surfaces and an outer surface joining the upper and lower principal surfaces (col. 14 line 35-37), an inner surface defining a hole in a central portion of the substrate (col. 14 line 63-64), and with an outer diameter of 66mm and a thickness of 1mm (col. 14 line 38-39). As to claim 1 and 4, Takahashi et al. discloses that the upper and lower surfaces have a small waviness of 0.398nm (col. 19 line 59). As to claims 2-3, Takahashi et al. discloses that the principal surfaces have an average surface roughness Ra of 0.3nm (col. 8 line 67), and a maximum height Ry or Rmax of less than 5nm (col. 8 line 67). As to claim 5, Takahashi et al. discloses that each of the principal surfaces have a flatness of 3 micrometers (col. 15 line 12).

As to the limitation, wherein the outer surface does not include any of polishing marks, grinding marks and chamfering marks, Takahashi et al. teaches that the outer edge was grounded, chamfered and then polished (col. 14 lines 65-col. 15 lines 7), however teaches that the end face is mirror finished (col. 15 line 7). Therefore, since the end face is mirror finished, there would be no grinding marks, chamfering marks or polishing marks.

As to the limitation of the outer surface having a molding free face and wherein the mirror surface property of a molding die is transcribed onto the upper and lower principal surfaces are product by process limitations. Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). This burden is NOT discharged solely because the product was derived from a process not known to the prior art. *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974). Furthermore, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227

USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitations; wherein a mirror surface property of molding die is transcribed onto the upper and lower principal surfaces, and an outer diameter satisfies a desired dimensional tolerance by selecting a predetermined volume of a glass material, wherein a thickness of the molded glass substrate satisfies a desired dimension and tolerance by adjusting a barrel die size, or limitations like molded, molding free face, formed by molding between precision planar processing members, is a method of production and therefore does not determine the patentability of the product itself.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6-7,23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. in view of Donley et al. (3660061).

Takahashi et al. discloses the glass substrate described above. Takahasi et al. fail to disclose that the inner surface is ground and polished or fire polished. Donley et al. teaches that fire polished glass surface is stronger than a ground and polished surface of plate glass and in addition the article is less subject to breakage on continuous exposure to hot sunlight than an article of similar appearance that is formed of a homogenous colored glass (col. 7 lines 64-67).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Takahashi et al. with the inner surface that is ground and polished since Donely et al. teaches that it is a notoriously well known method for glass substrates as disclosed in col. 7 line 65 to give the glass the appearance of a colored glass composition to the human eye.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Takahasi et al. with the inner surface that is fire polished because it is a stronger surface than a ground and polished surface of plate glass (col. 7 line 65).

As to claim 23, wherein the inner surface comprises a rounded edge without corners, applicant states in the specification that fire polishing creates rounded edge without corners (spec. page 4 lines 20-22). Therefore, Donely et al. inherently teaches wherein the inner surface comprises a rounded edge without corners since Donely et al. teaches that fire polished glass surface is stronger than a ground and polished surface of plate glass and in addition the article is less subject to breakage on continuous exposure to hot sunlight than an article of similar appearance that is formed of a homogenous colored glass (col. 7 lines 64-67).

Hence, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Takahasi et al. with the inner surface comprises a rounded edge without corners because it is a stronger surface than a ground and polished surface of plate glass (col. 7 line 65).

Response to Arguments

4. Applicant's arguments filed 12/1/2006 have been fully considered but they are not persuasive.

In response to applicant's argument that Takahashi et al. does not disclose wherein the outer surface does not include any of polishing marks, grinding marks, and chamfering marks, Takahashi et al. teaches that the outer edge was grounded, chamfered and then polished (col. 14 lines 65-col. 15 lines 7), however teaches that the end face is mirror finished (col. 15 line 7). Therefore, since the end face is mirror finished, there would be no grinding marks, chamfering marks or polishing marks. Furthermore, applicant further states in the arguments page 5, that a molding free face has a smooth *mirror finished* surface, hence a mirror finished face would not have grinding marks, chamfering marks or polishing marks as taught by the applicant.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Jane Rhee".

Jane Rhee
January 4, 2007